DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-023799
Date Inspected: 07-Apr-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: An Qing Xiang

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Components

Summary of Items Observed:
On this day CALTRANS OSM Quality Assurance (QA) Inspector, Anand Upadhye was present during the times noted above for observations relative to the work being performed.

NDT
BAY 14

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted notification number 08757.
Ultrasonic Testing (UT).

This QA inspector performed UT of approximately 10 % of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

SEG3015D-311, 291, 297, 302, 307, 292, 296, 301, 306, 208.

SEG3015H-282, 286, 291, 281, 290, 271, 266, 205.

SEG3015F-302, 297, 292, 312, 307.

SEG3015H-276.

During the Quality Assurance Ultrasonic Testing (UT) verification of welds located on OBG Segment 13CW, this Quality Assurance Inspector (QA) discovered the following issues:

A total of one (1) Class “A” indication measuring approximately 20mm in length.
ZPMC QC personnel have tested and accepted a weld that did not meet the Visual Testing (VT) requirements of the contract documents.

The indication details are given as below:

• The Indication rating is +4dB and length approximately 20mm.
• The Thickness of the plate is 22mm and depth of the indication approximately 16mm.
• The indication is located on the weld joint identified as SEG3015H-276.
• The “Y” location for this indication is approximately 135mm from top edge of this RS Stiffener.
• The weld is a Complete Joint Penetration (CJP) ‘T” weld joint joining Side Plate RS Stiffener to Floor Beam (FB3224A) at panel point 123.
• This weld did not meet the Visual Testing (VT) requirements of the contract documents due to incomplete welding at the cope hole.
• The indication is clearly marked by QA near the weld.

This QA Inspector informed ZPMC QA Mr. Wang Lu and ABF QA Mr. Peter Shaw of the above issue and that an Incident Report shall be generated for the same.
See attached pictures for further information.

WELDING
This QA Inspector observed the following work in progress:

BAY 14
This QA Inspector observed ZPMC qualified welding personnel identified as 066179 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to Deck panel weld of OBG Segment 13BW. Weld joint is identified as SEG3014H-131/132. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2114-FCM-1. This QA Inspector noted welding variables were 130~140 amperes and 24.9 volts, which appears to be in compliance with the approved WPS.

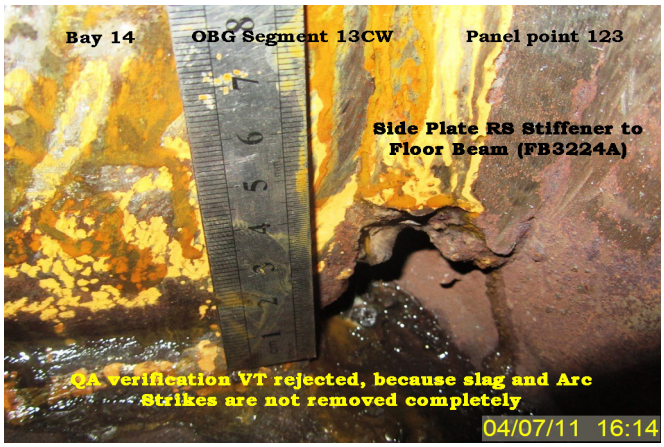
This QA Inspector observed ZPMC qualified welding personnel identified as 067949 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Sub assembly part SA3416 weld at panel point 128.3, of OBG Segment 14W. Weld joint is identified as SEG3020E-010. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2232-ESAB. This QA Inspector noted welding variables were 265~280 amperes and 25.2 volts, which appears to be in compliance with the approved WPS.

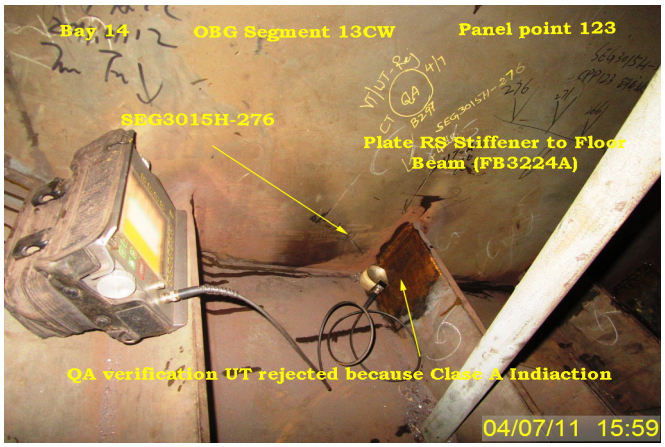
This QA Inspector observed ZPMC qualified welding personnel identified as 067275 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Floor beam flange weld at panel point 128, of OBG

Segment 14W. Weld joint is identified as SEG3020G-006. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2232-ESAB. This QA Inspector noted welding variables were 290~300 amperes and 25.1 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066881 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Floor beam flange weld at panel point 127.5, of OBG Segment 14W. Weld joint is identified as SEG3020J-019. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2232-ESAB. This QA Inspector noted welding variables were 275~290 amperes and 25.5 volts, which appears to be in compliance with the approved WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, phone: 15000422372 , who represents the Office of Structural Materials for your project.

Inspected By:	Upadhye,Anand	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer